

## (Mark Up Copy of the "Original Claims")

**What is claimed is:**

- 5 1. (Currently Amended) A copolymer having an elongation of at least 150%, comprising a total of at least 90% by weight of two principal monomers, wherein one principal core monomer is an aryl acrylic hydrophobic monomer. The chemical structures of these aryl acrylic monomers are shown in figure 1. The other monomer, present in an amount not greater than 10% of the aryl acrylic hydrophobic monomer, is a cross-linking monomer.
- 10 2. (Currently Amended) UV-light absorbing, and/or other light absorbing components will be added into the core monomer when situation required.
- 15 3. (Currently Amended) After core polymers have been processed to the forms and shapes required for various medical devices for eye surgeries, a thin layer of biocompatible hydrophilic polymer would be processed onto the core acrylic polymer. The general chemical structures of these biocompatible hydrophilic monomers are shown in figure 2.
- 20 4. (Currently Amended) The implants can be prepared by individually machining or mass-produced by injection molding for general usage of patients.
- 25 5. (Currently Amended) These ophthalmic polymer materials, which have high refractive index and biocompatible surface that are to be used for foldable Intraocular Lenses (IOLs) as well as other ophthalmic devices, such as contact lenses, keratoprotheses, and corneal rings or inlay. Also, other eye implant surgeries under development.
6. (Currently Amended) The bio-compatible surface processed copolymers can be activated using conjugation chemistries then enable the covalently attachment of various commercial available drugs for medical applications. The medical devices include but not limited to IOL's, catheters, vascular graft or stent, artificial joint, medical devices for blood oxygenation, dialysis, coronary artery implant,

Application No. 10/588,757  
Art Unit 1700; 1713

Applicants: Yu-An Chang & Jim-Son Chou.  
Examiner: Timothy Cole & David W. Wu; Pezzuto, Helen Lee

polymer is processed onto the core acrylic polymer. The general chemical structures of these biocompatible hydrophilic monomers is described in figure 2 wherein  $R_1$  &  $R_2$  are functional groups such as NR, F, Cl, Br, I,  $OCH_3$ ,  $OCH_2CH_3$ , or Alkyl groups such as  $CH_3$ ,  $CH_2CH_3$ , propyl, i-propyl or butyl groups; M is 10 to 1000.

7. The method of Claim 1, wherein the intraocular implants can be prepared by individually machining or produced by injection molding.
8. The method of Claim 1, wherein the surface coating of biocompatible hydrophilic polymer can be activated using conjugation chemical reactions for the covalently attachment of commercially available pharmacologically active chemicals.
9. The method of claim 8, wherein said the pharmacologically active chemicals are anti-coagulant drugs, anti-cancer drugs, Vascular Endothelial Growth Factor (VEGF) and/or Platelet Derived Growth Factor (PDGF) which include, but not limited to heparin, Taxol, and angiogenesis factor is selected from the group consisting of VEGF, VEGF 2, bFGF, VEGF121, VEGF165, VEGF189, VEGF206, PDGF, PDAF, TGF-B, PDEGF, PDWHF.
10. The method of Claim 8, wherein said the bio-compatible surface processed copolymers can covalently attached with cells from specific tissue or cell lines to create special biological effects, such as endothelium cells to reduce blood activation, and other unwanted or harmful biological activities.

E. Other: See Continuation Sheet.

**RESPONSE:**

The Status of every claim has been indicated after its claim number following the instructions of the examiner. Claims are to be examined as showed in the attached claims section of the "clean copy" of the patent application.

***Conclusion and Conditional Request For Constructive Assistance***

For all of the above reasons, applicant submits that claims are now in proper form to be examined, and that the claims 1-10 all define patentably over the prior art. Therefore they submit that this application is now in condition for allowance, which action they respectfully solicit.

Applicants have elected to restrict claims 1-10 of this application to be examined so that they are proper, definite, and define novel methods, which are also unobvious. If, for any reason, this application is not believed to be in full condition for allowance, applicants respectfully request the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P. § 706.03(d) and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Very respectfully,

---

Yu-An Chang & Jim-Son Chou, applicants

---